CENTRAL INTELLIGENCE AGENCY

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INFORMATION REPORT

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SUBJECT	High-Tension Cables, Power Stations, Boosters and Transformers in Slovakia	DATE DISTR.	4 August 1954
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THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

High-Tension Cables:

1. A long-distance cable of 120,000 V leads from the Vienna branch line, which ends at Bratislava as number BZ 1, to Zilina. From Zilina it continues as number BZK to Kosice, where it ends.

2. In Trnava a cable branches off to Senec, where there is a booster station, and then continues as an international line through Parkan to Hungary, numbered BK 1.

3. The Senec power station, from which a cable leads back to Bratislava, is a relief station in case of overloading of the transformer. This cable is also numbered BK 1. It was laid in 1949 for the Ivanka transformer station, which serves the airfield there. This cable is on metal poles, 22 meters high.

4. In Trencin a cable of 120,000 V, branches off to Vsetin, numbered BZ 1. A branch cable, number BZ 1, also leads to Banovce where there is a branch line from the pylon to Kubrica, supplying the military ammunition stores. This is a military line maintained only by soldiers. It was installed in 1949. From Kralovany there is a branch to Turciansky Svaty Martin.

5. In the Kralovany district, another line, ZVD 1, branches off to the long-distance line leading to Poland.

6. The following units are connected to the long-distance cables BZ 1 and BZK: a steam power station with two boosters, three transformer stations, and five distributing stations in Bratislava.

7. The Trnava steam power station is connected with the Koburk Enamel Works booster. The Trnava steam power station also has a booster for the railroad car shop and the sugar factory in Trnava.

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(Note: Washington Distribution Indicated By "X"; Field Distribution By "#".)

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8. In Nove Mesto nad Vahom is a booster connected with the Nove Mesto hydroelectric power station.

9. The Trencin steam power station, with booster, has the following hydroelectric power stations connected to its grid: Dubnica, Ilava, and Ladce.

10. The Povazska Bystrica booster is connected with the Povazska Bystrica steam power station.

11. The Zilina steam power station is connected with the Kysucke hydroelectric power station.

12. The Ruzomberok auxiliary steam power station leads through Rybarpole and is connected with a 100,000 V line which has 22,000 V branch lines.

13. The following power stations are connected with the cable which branches off via Senec to Hungary: Trnava, Senec, and Nove Zamky-Parkan. These are all steam power stations.

14. From the Bratislava transformer a 120,000 V long-distance line leads to Hodonin, via Malacky, where it is connected with a steam power station. A booster is also connected with this steam power station. Another booster is connected with the line in Kuty.

15. A 60,000 V line leads from Bratislava to Zilina. As far as Modra this line has the number 0/3, and there is a booster there. From line 0/3, a military line branches off at Pezinok and leads through Pernek-Kuchyna to the military booster in Malacky, where it supplies the firing range, the airfield and the barracks.

16. From the Modra booster, branch line 0/8 leads through the Jablonica transformer and the power station in Myjava to Uherske Hradiste. At Casta a military line branches off this line 0/8 and leads to the transformer at elevation point 754.

17. A second line from the Modra booster leads to Trnava, as number 0/5, where it proceeds through the railroad car shop booster, as number 5/2, to Nove Mesto nad Vahom. From Nove Mesto it goes on to Zilina with the same number, 5/2. From Nove Mesto, the line carries not 60,000 V, but 22,000 V. This 22,000 V section is connected with the following hydroelectric power stations: Nove Mesto nad Vahom, Dubnica, Ilava, Ladce, Puchov nad Vahom. From Puchov, it continues as a 60,000 V line and ends at the Zilina hydroelectric power station.

18. From the booster at the sugar refinery in Trnava a 22,000 V line leads to Jablonica, numbered 0/6.

19. Line number 12/2 runs from the Zilina hydroelectric power station to the Cadca booster, from which there is a 22,000 V branch to Erdutka, numbered 11/2, and a branch of 60,000 V to Vsetin, a military line numbered 14. From line 14, there is a branch to elevation point 1024, where there is a transformer, the end of the line. This line was laid in 1949.

20. The Leopoldov-Mestecko booster has a 60,000 V branch line to Banovce nad Bebravou, numbered 18/5. In Banovce it runs into a booster from where it is distributed to the local network.

21. The following branch lines, of 60,000 V each, go out from the Nitra power station: Nitra to Nove Zamky, numbered 2; Nitra to Levice, numbered 17/1; Nitra to Prievidza, numbered 17. In Prievidza the line ends in a booster, which is connected with the Prievidza-Handlova power station. The Prievidza booster is connected with the 120,000 V long-distance cable, number BP 1, which leads from Banovce to Prievidza. The Prievidza booster is connected with the Zilina 60,000 V line, numbered 65/1.

22. A 60,000 V branch line from the Levice power station leads to Hronsky Svaty Kriz, numbered 14, through the Nova Bana booster.

23. A second 22,000 V line from Levice to Parkan, numbered 4, ends at the steam power station in Parkan.

24. A third 60,000 V, branch line from the Levice power station, leads to Banska Stiavnica, numbered 41. A military line leads from this line to elevation point 1010, where it ends in a transformer.

25. The Banska Stiavnica booster has a branch line, number 41 A, to the Sahy steam power station. Another branch, also numbered 41 A, leads to Hronska Dubrava, where it is connected with line 14 leading from Hronsky Svaty Kriz to Zvolen.

26. The Zvolen steam power station has a 60,000 V branch, number C 9/7, to Oremiaz (sic), the military firing range.

27. The Zvolen circular line 14/8, 14/7, 14/9 ends in Brezno. It passes through the steam power station in Lucenec nad Rimavska Sobota.

28. A third 60,000 V branch line, numbered 12/4, from the Zvolen steam power station leads to the Banska Bystrica power station, from this a military line branches off to the military airfield at Hajniky. The power station in Banska Bystrica is connected by a 22,000 V lead, numbered 22/C, with the 100,000 V long-distance line. This line is for the transmitting station in Banska Bystrica.

29. There is a 60,000 V branch line from the power station in Banska Bystrica, numbered 16/5, to the Lopej transformer, whence it continues to the Porubka transformer, under number 16/4. Lopej is connected with Brezno by number 16/5, whence it continues from the booster as a 22,000 V line numbered 16/5 A, to Poprad and the Svit Chemical Works.

30. From line 16/5 A a line branches off in Telgart and leads to Dobsina.

31. a. Near Kubrice is a high-tension cable, BZ 1, carrying a current of 100,000 V. It leads from Bratislava to Zilina. From it, line B1 branches off to Banovce nad Bebravou-Nitra. From BZ 1, line P branches off to Prievidza-Handlova. The mines in Handlova are connected to this line.

b. Southward towards Bratislava, and connected to line BZ 1, are the military airfields in Trencin and Piestany, the military installations in Zlatovce and Istebnik, the foundries in Trnava, the barracks with workshops in Trnava, the airfield and barracks in Pezinok and the Vajnory and Ivanka airfields in Bratislava.

c. Northwestward towards Zilina, and connected to line BZ 1, are the Skoda Works in Dubnica and the Czech Armament Works in Povazska Bystrica.

d. The cable leading westward from Kozlice, the distributing station, runs only as far as the military installations at Kubrice.

Power Stations, Boosters and Transformers:

32. Bratislava power station (numbers refer to Annex A):

The building is 20 x 15 meters; height is about 12 meters.

(1) steam distributor
(2) lead from distributors to turbine
(3) used-steam conduit from the turbine back to the boiler

(4) twelve generators, Skoda type, capacity of each turbine 3,000 Kwh; 120 HP
(5) leads for current from the generators to the transformer generator (a generator attached to the transformer)
(6) transformers (generator-transformers) with a lead of 3,000 V and a transmission of 22,000 V.
(7) lead to the main transformer which operates with 120,000 V.
(8) conductor for unused steam

33. The Trnava power station has only 10 turbines, with a capacity of 3,000 Kwh, 120 HP. The Koburk power station which goes up to 120,000 V is linked with this one. (see para. 7 above)

34. The Senec power station has 8 turbo-generators, capacity 3,000 Kwh, 120 HP. A booster for 120,000 V is attached. (see para. 3 above).

35. The Trencin power station is equipped exactly like the one in Bratislava. (see also para. 9 above).

36. The Kosice power station is equipped like the one in Bratislava.

37. The Nitra power station has 8 turbo-generators, capacity 3,000 Kwh, 120 HP, transformer for 60,000 V attached. (see para. 21 above).

38. The hydro-electric power stations at Dubnica and Ladce both have the same equipment (numbers refer to Annex B):

(1-4) offices, workshops
(5) turbines
(6) generators, capacity 2,000 Kwh; 120 HP
(7) switch-over station from generators to transformers

39. The hydro-electric power station at Dubnica has the following equipment (see Annex C):

(1) workshops, stores
(2) hydro-electric power station
(3) group of masts; lead to grid
(4) transformers
(5) canal
(6) one-way road

40. The hydro-electric power stations at Ilava and Puchov are similarly equipped, with the same capacity, except that the booster-transformers are for 120,000 V with a transmission of 22,000 V.

41. Bratislava has two boosters (numbers refer to Annex D):

(1) 22,000 V lead to distributors
(2) distribution transformers
(3) booster transformers
(4) rectifying transformers
(5) lead to transformer-generators
(6) booster generators
(7) transmission of 60,000 V.

42. In Leopoldov-Mestecko are a transformer and a booster.

43. In Spisska Nova Ves is a steam power station, with booster.

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44. About 1 km. east of Dobsina, construction has been going on since 1950 on a dam and power plant. The dam, about 100 meters wide and 7 meters high, is on a small river. Construction was planned for completion by May 1953. (See Annex E)

45. New Electric Power Plant in Hodonin.

a. Construction of a new electric power plant started in 1950 and was intended to be operating by 1953. It is unlikely that this was achieved as construction was still in progress in August 1953.

b. The plant is on a site which belonged to the Czech State Farms, on the south-western outskirts of Hodonin, near the Hodonin-Holic railway line. The main building is 300 meters northeast of the railway line. The whole site is surrounded by a temporary fence 600 x 300 meters long.

c. Construction is being carried out by the Energostav firm. Several houses have been built for offices (two one-story brick buildings, 30 x 10 meters and 20 x 10 meters) and some wooden huts as stores and billets. The ground on which the main building was erected is marsh-land; it was therefore necessary to reinforce the foundations with steel piles. The main building is divided into three separate halls, about 60 meters long and 10 to 15 meters wide. All three halls are under one roof. The hall nearest the railway line is slightly smaller than the other two. The distance between each hall is about 10 meters. In August 1953 all three halls were faced with mortar and glass windows put in the large hall. The building had reached a level 20 inches high in April 1953, but in August 1953 it was 40 meters high. The electric field for insulators is ready and the insulators, which are up to 3 meters high, are inter-connected. There is another two-story building, 18 x 8 meters, between the main building and the railroad line. It is of reinforced concrete, filled in with bricks. This will probably be used to house electrical instruments. Near the main building are two chimneys, 100 meters high, 10 meters in diameter with walls 150 cms. thick near the ground. The distance between them is 15 meters. The building of the chimneys was finished in May 1953. Near the chimneys is a one-story brick building 20 x 10 meters. Between the main building and the tobacco factory is a one-story building of reinforced concrete, size 8 x 15 meters, with a reinforced concrete tower, 6 x 6 meters, and about 15 meters high from the ground.

d. Not far from the bridge crossing the north leg of the Morava river, a lock has been built by which the level of the river was raised. A pipe-line was laid from the lock to the main building of the power plant; the pipes are concrete and are 150 cms in diameter. All the buildings are connected by this pipe-line.

e. New high-tension cables were finished in August 1953 and put into operation. They run from Zlin to Hodonin, carried on iron frame pylons 15 meters high. Each pylon has three supporting branches holding six cables.

f. It is believed that this power plant will supply electricity not only to the whole district (HAK Armature Works, the tobacco factory, the furniture factory, the Tatra Wood Works, the sugar refinery and the oil co-operative), but also to southern Moravia and possibly even to Hungary. The power plant is steam-driven and will operate on lignite coal, the first power-plant of its kind. It will be supplied with coke from the nearby lignite mines, where coke of third-rate quality is produced, which could not previously be used for this purpose.

46. Ruzomberok-Liskova, Slovakia.

a. A new 100 KV power distribution station is located east of the city of Ruzomberok, in the vicinity of the village of Liskova, on the south side of

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the Ruzomberok-Liskova-Liptovsky Svaty Mikulas highway, about 50 meters south of the railway tracks which run parallel with that road and about 800 meters east of the eastern outskirts of the city. Building started in 1950 and in May 1952 the station was put into operation. A 22 KV distribution station also under construction was unfinished in 1952. The building was carried out by Elektrostav Bratislava and CSSZ Vrutky. Electrical equipment was supplied by the Skoda Works and assembly was done by Energovod (formerly Energostav).

b. Description (numbers refer to Annex F):

(1) A connecting road about 50 meters long from the road leading from Ruzomberok.
(2) Site about 300 meters long and 200 meters wide is surrounded by a wire fence.
(3) Main entrance from the connecting road; next to it is a wooden guard-room.
(4) The actual external 100 KV distribution station occupies an area of 100 x 60 meters. Inter-linking lines are attached to steel masts. There are two transformers, Skoda type, 100 KV. The second transformer is located east of the first one.
(5) The 100 KV line is connected parallel to the 100 KV line from Zilina and Turciansky Svaty Martin. Power is supplied by the Zilina power plant.
(6) An overhead line leads from the 100 KV transformer to the internal 22 KV distribution station.
(7) The internal 22 KV distribution station is located south of the 100 KV distribution station.
(8) Three new 22 KV lines lead southward to Banska Bystrica.
(9) The fourth 22 KV line leads to Liptovsky Svaty Mikulas along the railroad tracks.
(10) A one-story brick building in the southwest corner houses garages and stores.
(11) Two identical one-story buildings, L-shaped, 15 x 12 x 5 meters, are located along the west side and contain offices of the Elektrostav, apartments, and stores.
(12) Two one-story houses containing apartments are in the northwest corner. Size: 15 x 12 meters.

c. Building of this distribution station began as part of the plan for electrification of Central Slovakia. This station is a distribution point for Vrutky, Turciansky Svaty Martin, Liptovsky Svaty Mikulas and Banska Bystrica. The 100 KV station and half of the 22 KV station have been in operation since 1952. It was to be completed before the end of 1953. The distribution station is operated by seven employees, living on the premises.

Enclosure: 4 map sections (5 pages - Air)

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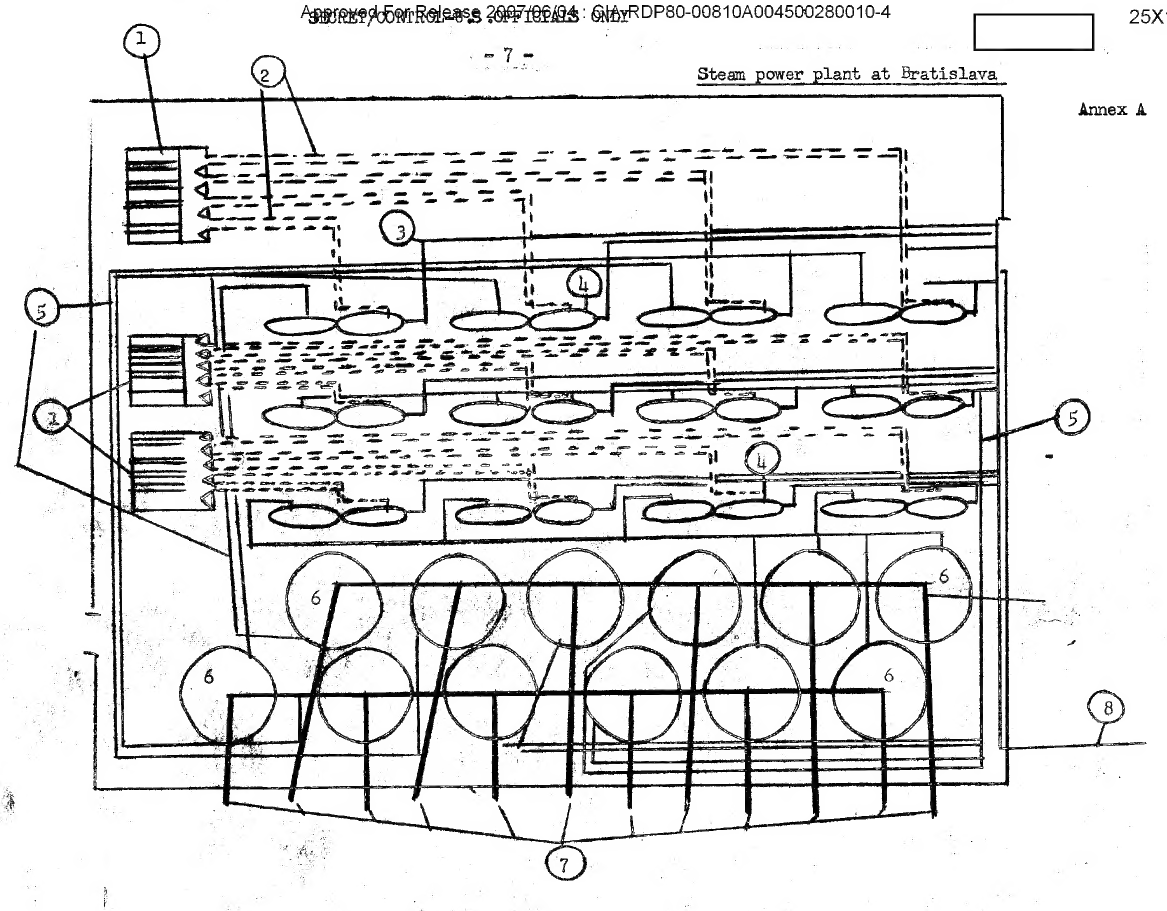
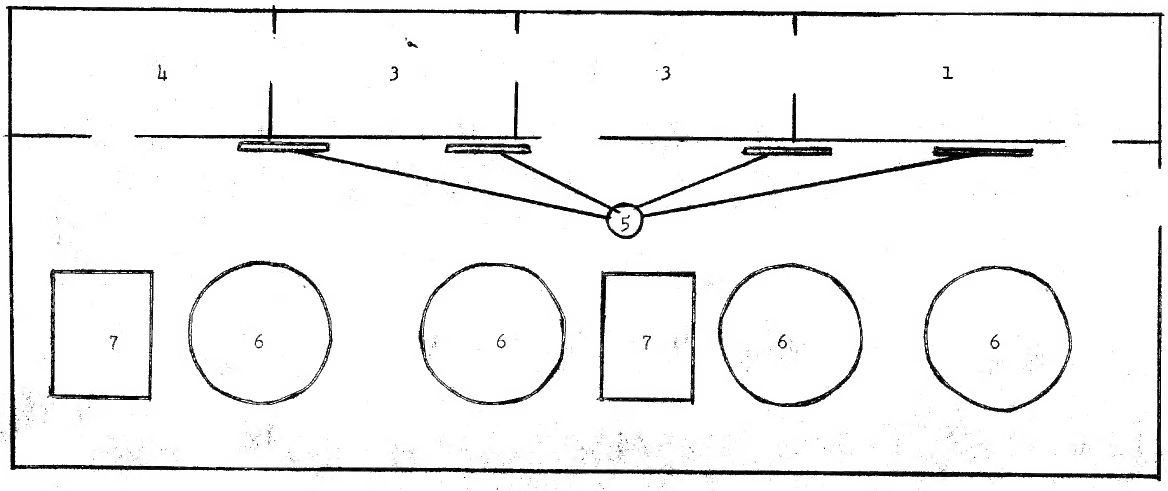
Steam power plant at Bratislava

Annex A



Annex B

Hydro-electric Power Stations in Dubnica and Ladce



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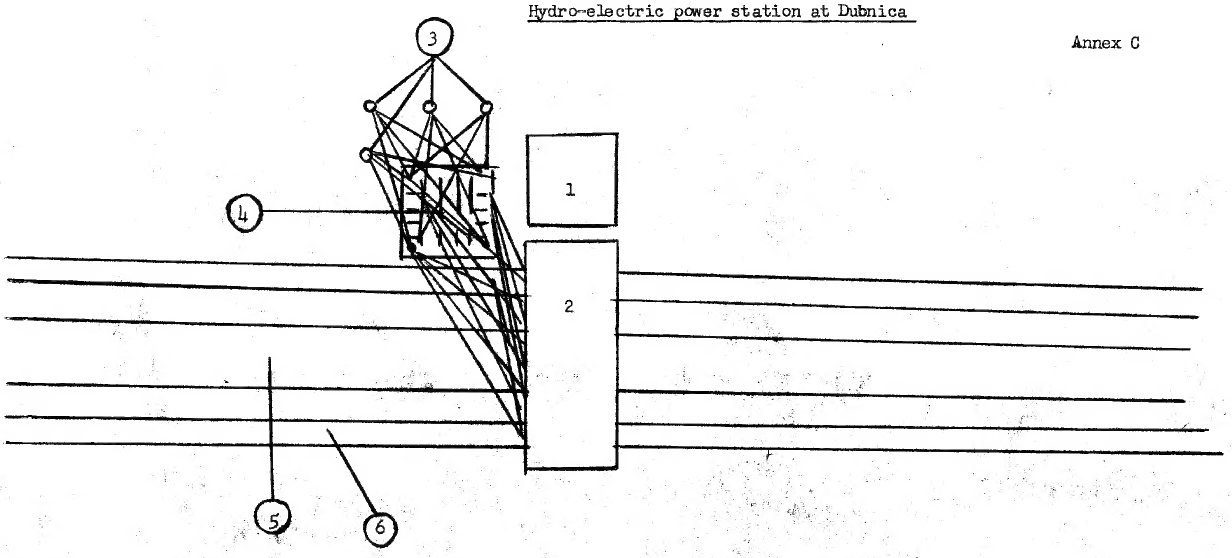
Hydro-electric power station at Dubnica

Annex C



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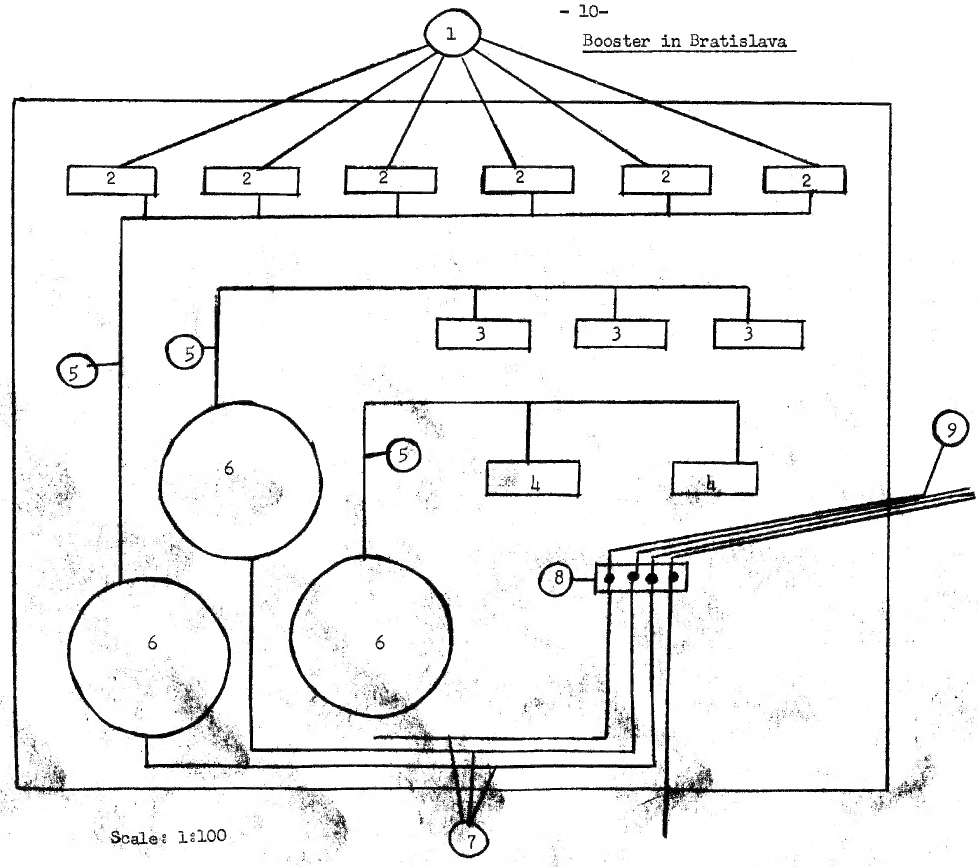
Booster in Bratislava

Annex D



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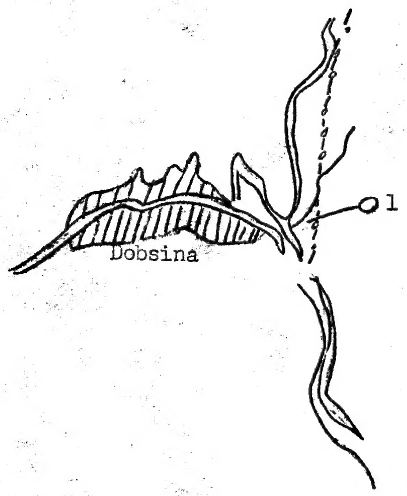
Annex E

Dam and Power Station



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Annex F

New 100 KV Power Distribution Station
Ruzomberok-Liskova